

Replicated Agronomic Cotton Evaluation  
XtendFlex Only



Grower Cooperator: Alan Monroe  
Texas A&M AgriLife: Ken Legé, Ph.D.  
County Extension Agents: Kristie Keys  
Andy Hart  
Location: Plainview, TX (Hale Co)  
Replicates: 3  
Plot Size: 8 rows x ~1/2 mi  
Row Spacing: 30"  
Beds: No  
Previous crop(s): Failed cotton, then sorghum  
Soil type: Pullman Clay Loam  
Irrigation: Drip (80"; ~3.2 gpm)

Planting Date: 5/14/2024  
Seed Treatments: Various fungicide+insecticide  
Moist. @ planting: Very Good  
Soil Temp @ planting: 75.4F @2"; 67.2F @6"  
Seed/Acre: 55,000  
GPS Lat: 34.258149  
GPS Long: -101.739086  
Elevation: 3411  
Harvest Date: 10/22/2024

Crop Stage*	Avg High Temp (°F)	Avg Low Temp (°F)	DD60 (95°F max)	Long Term DD60	Rain (in)
Planting to PHS	89.1	60.3	507.5	437.0	4.44
PHS to First Bloom	92.7	68.0	493.0	499.0	0.36
First Bloom to Cutout	92.6	65.8	521.5	610.0	1.30
Cutout to Defoliation	89.8	60.3	788.0	874.0	3.05
Defoliation to Harvest	82.4	50.5	132.0	86.0	0.00
<b>Total</b>			<b>2442.0</b>	<b>2506.0</b>	<b>9.15</b>

\*PHS @ ≥500DD60s; first bloom @ ≥1000 DD60s; Cutout = first bloom + 28 d

Sorted by Total Crop Value

Variety	Lint Yield (lbs/A)	Turnout (%)	Mic	Length (in)	Staple (1/32 in)	Strength (g/tex)	Uniformity (%)	Color Grades	Leaf Grade	Loan Value (\$/lb)	Lint Value (\$/A)	Total Crop Value (\$/A)
DP1822XF	1388	36.0	3.97	1.11	35.4	31.3	80.2	21, 21, 21	2.0	0.5620	780	968
NG3434B3XF	1383	39.5	4.05	1.13	36.3	29.0	80.5	21, 21, 21	3.0	0.5628	778	937
FM765AX	1444	38.0	3.86	1.05	33.7	29.6	80.5	21, 31, 31	3.0	0.5225	755	921
NG3457B3XF	1351	39.5	4.16	1.07	34.3	29.4	80.5	21, 21, 21	2.0	0.5465	738	900
DP2335B3XF	1344	39.4	4.05	1.06	33.9	28.2	79.6	21, 21, 21	2.3	0.5320	715	866
Armor9371B3XF	1351	39.9	4.15	1.05	33.6	26.4	80.0	21, 11, 21	2.3	0.5243	709	860
FM823AXTP	1229	36.7	3.82	1.09	34.8	31.0	81.1	21, 21, 21	2.3	0.5530	680	834
Armor9413XF	1222	40.3	4.40	1.06	34.0	27.2	80.9	21, 21, 21	2.0	0.5322	650	788
Mean	1339	38.7	4.06	1.08	34.6	29.0	80.4		2.4	0.5419	726	884
LSD	45	0.7	0.08	0.01	0.3	0.8	ns		0.3	0.0085	29	34
R-square	0.84	0.90	0.92	0.91	0.91	0.90	0.54		0.78	0.89	0.83	0.85
CV (%)	3.1	1.6	1.7	1.1	1.1	2.5	0.7		12.6	1.5	3.8	3.6
Prob>F, variety	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.1415		0.0026	<0.0001	0.0004	0.0001

Collected by Kristie Keys, 7/16/24

Collected by Kristie Keys, 8/7/24

Planting Seed Quality

Variety	Plant Population (#/A)	% Stand Establishment	Plant Ht @ Late Squaring (in)	Total Nodes @ Late Squaring	Length of 4th Internode @ Late Squaring (in)	Height-to-Node Ratio @ Late Squaring (in/internode)	Plant Ht @ Peak Bloom (in)	Total Nodes @ Peak Bloom	Length of 4th Internode @ Peak Bloom (in)	Height-to-Node Ratio @ Peak Bloom (in/internode)	Seed/lb	Warm Germ (%)	Cool Germ (%)	Seed Yield (lbs/A)	Seed Turnout (%)	Seed Value (\$/A)
DP1822XF	39398	71.6	24.6	15.3	3.0	1.63	28.2	16.4	1.5	1.74	4612	93	69	1828	47.4	187
NG3434B3XF	32912	59.8	21.6	14.0	2.7	1.56	25.9	15.7	2.0	1.67	5287	93	83	1552	44.3	159
FM765AX	29040	52.8	20.6	15.0	2.3	1.38	24.7	16.0	1.2	1.56	5585	93	76	1616	42.6	166
NG3457B3XF	33106	60.2	22.3	15.6	2.7	1.43	27.0	15.2	1.9	1.80	5750	93	91	1581	46.2	162
DP2335B3XF	35429	64.4	21.4	14.4	2.5	1.49	25.8	14.9	1.9	1.75	5768	96	77	1477	43.3	151
Armor9371B3XF	31073	56.5	25.3	15.6	2.8	1.62	32.0	17.0	1.9	1.90	5575	98	72	1480	43.7	152
FM823AXTP	31363	57.0	20.6	14.5	2.3	1.43	25.6	16.2	1.3	1.60	4788	96	81	1501	44.8	154
Armor9413XF	32331	58.8	25.1	14.8	2.8	1.71	30.1	16.8	1.8	1.80	5000	93	81	1345	44.4	138
Mean	33081	60.1	22.7	14.9	2.6	1.53	27.4	16.0	1.7	1.73				1548	44.6	159
LSD	ns	ns	1.2	ns	0.3	0.09	2.1	ns	ns	ns				55	0.6	6
R-square	0.53	0.53	0.83	0.58	0.60	0.78	0.73	0.50	0.61	0.62				0.92	0.93	0.92
CV (%)	11.3	11.3	5.1	4.9	9.9	5.7	7.3	6.4	21.0	8.4				3.3	1.2	3.3
Prob>F, variety	0.1090	0.1090	0.0003	0.1345	0.0447	0.0036	0.0062	0.2540	0.1041	0.1750				<0.0001	<0.0001	<0.0001

Values in bold are best within each column; values in green-shaded cells are not significantly different from the best value; total crop value = seed value + lint value.

Seed value = seed yield x \$226/metric ton (Aug 2024 price, according to [US Cotton, Cottonseed Price Received Monthly Trends: USDA Farm Price Received | Ycharts](#))